AMENDMENTS TO THE CLAIMS

Please amend claims as follows:

1-123. (Cancelled).

124. **(Currently amended)** A method for fabricating an orthopedic implant prosthesis bearing, comprising the steps of:

pre-heating an ultrahigh molecular weight polyethylene (UHMWPE) preform at a temperature greater than ambient temperature and less than the decomposition temperature of the UHMWPE for a period of time greater than 30 minutes;

irradiating the UHMWPE preform, thereby crosslinking the UHMWPE preform; and

quenching residual free radicals in the **crosslinked** UHMWPE preform **by heating the irradiated UHMWPE**.

125. (Previously presented) The method of claim 124, further comprising the steps of:

cooling the preform after the quenching step to a temperature below the melting temperature of the UHMWPE; and

forming the preform into a prosthetic bearing.

126. **(Currently amended)** A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

pre-heating an ultrahigh molecular weight polyethylene **(UHMWPE)** preform;

irradiating the ~~**ultrahigh molecular weight polyethylene**~~ **UHMWPE** preform, thereby crosslinking the ~~**ultrahigh molecular weight polyethylene**~~ **UHMWPE** preform;

quenching residual free radicals in the **crosslinked** ~~**ultrahigh molecular weight polyethylene**~~ **UHMWPE** preform subsequent to the irradiating step **by heating the irradiated UHMWPE** and

forming the ~~**ultrahigh molecular weight polyethylene**~~ **UHMWPE** preform into a prosthetic bearing.

127. **(Currently amended)** A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

pre-heating an ultrahigh molecular weight polyethylene (UHMWPE) preform;

irradiating the UHMWPE preform, thereby crosslinking the UHMWPE preform;

quenching residual free radicals in the **crosslinked** UHMWPE preform subsequent to the irradiating step **by heating the irradiated UHMWPE**; and

forming the UHMWPE preform into a prosthetic bearing.

128. (Withdrawn) A method for fabricating an orthopedic implant prosthesis bearing, comprising the steps of:

melting a polyethylene preform for a period of time greater than about 30 minutes;

irradiating the polyethylene preform to crosslink the polyethylene preform; and

quenching residual free radicals in the polyethylene preform.

129. (Withdrawn) The method of claim 128, further comprising the steps of:

cooling the preform after the quenching step to a temperature below the melting temperature of the polyethylene; and

forming the preform into a prosthetic bearing.

130. (Withdrawn) A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

melting an ultrahigh molecular weight polyethylene preform;

irradiating the ultrahigh molecular weight polyethylene preform to crosslink the ultrahigh molecular weight polyethylene preform;

quenching residual free radicals in the ultrahigh molecular weight polyethylene preform subsequent to the irradiating step; and

forming the ultrahigh molecular weight polyethylene preform into a prosthetic bearing.

131. (Withdrawn) A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

melting a polyethylene preform;

irradiating the polyethylene preform to crosslink the polyethylene preform;

quenching residual free radicals in the polyethylene preform after an irradiation; and

forming the polyethylene preform into a prosthetic bearing.

132. (Withdrawn) The method according to claim 128, wherein the polyethylene is ultrahigh molecular weight polyethylene.

133. (Withdrawn) A method for fabricating an orthopaedic implant prosthesis bearing comprising the steps of:

irradiating a polyethylene preform that has been melted, thereby crosslinking the polyethylene

quenching residual free radicals in the polyethylene preform after an irradiation; and

forming the polyethylene preform into a prosthetic bearing.

134. (Withdrawn) The method according to claim 133, wherein the polyethylene is ultrahigh molecular weight polyethylene.

135. (Previously presented) The method of claim 124, wherein the quenching step is carried out by heating the irradiated UHMWPE preform to a temperature above ambient temperature.

136. (Previously presented) The method of claim 126, wherein the quenching step is carried out by heating the irradiated UHMWPE preform to a temperature above ambient temperature.

137. (Previously presented) The method of claim 127, wherein the quenching step is carried out by heating the irradiated UHMWPE preform to a temperature above ambient temperature.

138. **(Currently amended)** The method of claim 124, wherein the UHMWPE preform is irradiated at a dose of about 4**[[.0]]** Mrads to about 30**[[.0]]** Mrads.

139. **(Currently amended)** The method of claim 126, wherein the UHMWPE preform is irradiated at a dose of about 4**[[.0]]** Mrads to about 30**[[.0]]** Mrads.

140. **(Currently amended)** The method of claim 127, wherein the UHMWPE preform is irradiated at a dose of about 4**[[.0]]** Mrads to about 30**[[.0]]** Mrads.